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**EMOTIONAL INTELLIGENCE: A LOOK AT ITS
EFFECT ON PERFORMANCE AT THE UNITED STATES
NAVAL ACADEMY**

by

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THE UNITED STATES NAVAL ACADEMY**

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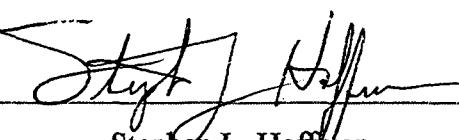
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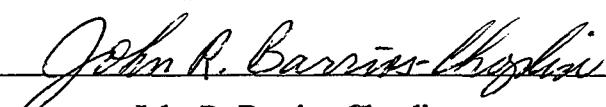
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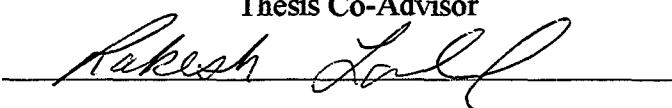
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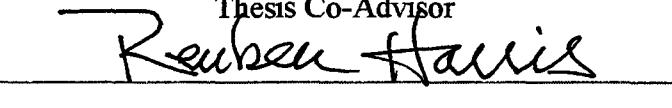
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ABSTRACT

This study uses the results from the BarOn Emotional Quotient (EQ) Inventory by a freshman class upon entry to the United States Naval Academy. The data reflects the response of 1,040 students between the ages of 17 and 22. Using BarOn's model, this study focuses on the relationship of EQ to Naval Academy performance measurements such as academics, general performance, and conduct. Attrition and gender relationships to EQ are also analyzed. Few studies have specifically addressed the EQ attributes found in young Naval leaders. In fact, most studies reviewed centered on EQ's influence on children or corporations. Potential Academy areas of interest such as academics, performance, conduct, attrition, and gender were examined in light of BarOn's five basic EQ components of Interpersonal, Intrapersonal, Adaptability, Stress Management, and General Mood and their relative subscales. Overall, BarOn's EQ components were able to show significant relationships of EQ to performance, conduct, attrition, and gender. It is recommended that the Naval Academy include the EQ construct in one of its standard leadership classes; and that the freshman class who took the test be allowed to retake the test during their senior year to provide longitudinal research.

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I. INTRODUCTION

A. BACKGROUND

Emotional Intelligence is a relatively new term to this society's vernacular. In fact, the phrase "emotional intelligence" was not coined until 1990.

With the emergence of a new name, this perhaps age-old concept has begun to develop into a science within itself. Because of its recent emergence, researchers are still grappling with the exact characteristics of emotional intelligence. Appendix A provides some current definitions of emotional intelligence held by its most prominent advocates.

Some researchers have argued that the true make up of one's total intelligence is not fully understood. Generally, 10 to 20 percent of one's overall intelligence is credited to the intellectual quotient (Mayer and Salovey, 1997). Proponents of an emotional quotient argue that the remaining 80 percent of one's intelligence can be partially found in the ability to understand oneself and others better.

B. EQ DEFINED

This study uses the results from the BarOn Emotional Quotient (EQ) Inventory taken by the freshman class upon entry to the United States Naval Academy. The data reflects the responses of 1,040 students between the ages of 17 and 22.

For clarity, this study emphasizes the definition of EQ that is used by BarOn (1997):

Emotional intelligence is defined...as an array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures. (p. 14)

As BarOn later notes, the term success in this definition can be subjective. This study examines some of the indicators of success, which are measured by the United States Naval Academy. Specifically, the influence of one's emotional intelligence will be examined in light of academic grades, general performance, conduct, attrition, and gender.

BarOn (1997) notes that the EQ Inventory (which in this case was used to measure the Academy students) does not seek to measure actual performance, but rather the "potential for performance" of a given individual. In essence, this distinction is important in that it emphasizes the leader's need to know the general tendencies of an individual in their decision making process. One does not need to predict one's behavior exactly, but rather be aware of the parameter of probable choices.

Perhaps the potential for performance can best be understood by realizing that the respondent's scores are not necessarily "good" or "bad." Instead, a low score in relation to the standardized mean may simply indicate a need for more attention in a particular area. Conversely, a score higher than the standardized mean shows a relative strength in a given area.

C. PERFORMANCE MEASUREMENT SELECTION

These indices of performance were chosen because the author believes these areas help to convey a realistic picture of the general success of the midshipmen. Success, in

this case, may be seen almost purely from the Academy's emphasis on each of these areas.

Additionally, gender was chosen to examine possible differences between the sexes on EQ.

Academic grades were included as a measure of performance in the cognitive arena. Like most schools, the Academy emphasizes academic performance as evidenced by the numerous policies that include grades as criteria for potential reward. For example, one's grade point average is fundamental in determining eligibility for most trips off-base. According to the Midshipmen Regulations Manual, students must have at least a 2.0 (4.0 scale), no grade of "F", and not more than one "D." (COMDTMIDNINST 5400.6A, p. 4-3).

Although the importance of academic grades is self-explanatory, other performance measurements such as performance and conduct grades may not be as readily understood and, are clarified below.

According to the Academy's Performance Instruction, the performance system at the Naval Academy is designed to "...evaluate midshipmen in everything done outside the classroom." (COMDTMIDNINST 1600.2, p. 3).

Furthermore, the Naval Academy Performance Instruction states,

The objectives of the Naval Academy Military System are to develop officer-like qualities in midshipmen and to ensure the performance of midshipmen warrants their commissioning as officers in the naval service. (p. 2)

A Naval officer in charge of each group of midshipmen awards a performance grade each semester. This study includes the average performance grade of each midshipman over five semesters.

The spirit of the Academy conduct system can best be explained by its Conduct Manual which states,

A midshipman's dedication, commitment to excellence, and exemplary standards of conduct apply both on and off duty, in personal behavior, and in relations with others in the civilian and military communities. Midshipmen must comply with the substance, spirit, and intent of all directives and avoid conduct that might reflect discredit upon the Brigade of Midshipmen, the Naval Academy, and/or the Navy, is in violation of any local, state, or federal law, or indicates questionable personal morals. (p. 1-1)

When students are found in violation of any directive, they are given an appropriate punishment and assigned demerits. Conduct grades are assigned each semester and depend on the number of demerits received for that semester. Conduct grades vary based on rank and number of demerits. For instance, a senior will receive an A in conduct if they have 0 to 10 demerits for a semester. On the other hand, a freshman can have up to 20 demerits and still receive an A. This distinction is made with the idea of holding the senior midshipmen to a higher standard. This study includes the average conduct grade of each midshipman over five semesters.

Finally, attrition characteristics will also be examined from the perspective of emotional intelligence. Like any school, there is a wide range of reasons for the departure

of students. Perhaps emotional intelligence will add to a common profile of individuals who have left the Naval Academy.

D. CONCLUSION

Understanding the different personal factors which may contribute to the relative success of midshipmen should prove to be very beneficial for today's leaders. Once these insights are gained, it would seem beneficial to pass these skills on to the next cadre of leaders.

For example, the Naval Academy has recently supported the idea of building insight into the personal factors which influence human behavior. Starting in the fall of 1999, the freshman leadership classes have been changed to reflect a stronger emphasis on human behavior and some of its associated psychological theories. This newly emphasized construct reflects a heightened intention of the Academy's leadership to develop the 'total intelligence' of the Navy's future leaders.

Research in the area of emotional intelligence is still at its embryonic stage. Few studies have fully captured the dynamics mentioned above. In particular, there is a paucity of research in the area of attrition as it relates to emotional intelligence.

It is the belief of the author, that a better understanding of the concepts found in EQ will broaden one's ability to lead effectively. Today's Navy may have a lot of technically proficient individuals, but many people would agree there is still a lot to learn about the dynamics of our most complex resource – humans.

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II. LITERATURE REVIEW

A. INTRODUCTION

Emotional Intelligence (EQ) is a relatively new phenomenon. Dan Goleman (1995) wrote a book called *Emotional Intelligence*, which has popularized the new term. Goleman's book has been read by millions and represents a broad spectrum of the emotional intelligence construct. He touches areas ranging from social skills to the development of the brain. Although Goleman's book has made the term more widely appreciated, the phrase Emotional Intelligence was actually coined by Salovey & Mayer in 1990.

EQ has been in the undercurrent of psychological thought for quite some time. Goleman (1995) credits Thorndike, a psychologist known for his development of the Intellectual Quotient (IQ) during the early part of the century, with helping to provide a precursor to the notion of emotional intelligence. Thorndike reported, "social intelligence – the ability to understand others and 'act wisely in human relations' – was itself an aspect of a person's IQ." (p. 42).

More recently, Gardner (1983) helped set the foundation for current thoughts on EQ. However, he did not use the term emotional intelligence in his book. Instead, he focused on the concepts of intrapersonal relationships and interpersonal relationships. The essence of intrapersonal skills is one's ability to understand one's own emotions. Interpersonal skills are essentially one's ability to read other people's emotions.

Together, intrapersonal and interpersonal abilities are the core of most emotional intelligence models.

Salovey and Mayer (1990) stated that emotional intelligence focuses on three adaptive abilities: regulating emotion; reading and expressing emotion; and using emotions to solve problems.

Regulating emotions means to simply control your own emotions and the ability to effectively respond to others' emotions. The second ability of reading and expressing emotion consists of understanding other's emotions through verbal and non-verbal cues and one's ability to empathize. Finally, using emotions to solve problems includes motivation, creative thinking, flexible planning, and redirected attention. (pp. 185-211)

Cooper and Sawaf (1997) suggest four cornerstones of emotional intelligence: emotional literacy, emotional fitness, emotional depth, and emotional alchemy.

Emotional literacy involves self-awareness and how one's emotions are realized. Emotional fitness includes trust and one's ability to successfully interact with others. Emotional depth deals with the essence of one's character and recognizes the impact of our emotional history factors on our decisions. Finally, emotional alchemy serves as the catalyst for creativity and thrives on learning. (pp. 33-38)

Mayer and Salovey (1997) gave a revised definition that emphasizes one's ability to think through emotions to adapt to a given environment (definition in Appendix A). Their new model has four pillars: 1) perception, appraisal, and expression of emotion; 2) emotion's facilitation of thinking; 3) understanding and analyzing emotions and

employing emotional knowledge; and 4) reflective regulation of emotions to promote emotional and intellectual growth. They argue these pillars are a significant factor in one's intelligence. Yet they note that such assertions have not been thoroughly studied and that today's understanding of emotional intelligence is at the embryonic stage. (pp. 10-15)

Currently, the definition of emotional intelligence varies among psychologists and researchers. Appendix A provides some of the primary definitions for emotional intelligence by prominent scholars.

Since this study uses the Bar-On test as the basis for the data set, the definition of emotional intelligence constructed by Bar-On (1997) is used: "...an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p. 14).

To better understand what is meant by emotional intelligence, one must first look at its root words. Goleman (1995) states "...the root of the word emotion is motere, the Latin verb "to move," plus the prefix 'e-' to connote 'move away,' suggesting that a tendency to act is implicit in every emotion. (p. 6)

Mayer and Salavoy (1997) modified their view of EQ to include more than a dynamic social trait and to emphasize intelligence. Intelligence, as it relates to emotional intelligence, involves "...actual abilities such as knowing what another person is feeling, that may involve considerable thinking...." They went on to define emotional

intelligence as a distinct mental skill and an "actual intelligence" because of the requirement to think to produce a particular outcome. (p. 8)

Bar-On (1997) notes that "intelligence describes the aggregate of abilities, competencies, and skills...in that they represent a collection of knowledge used to cope with life effectively." The adjective emotional is employed to emphasize that this specific type of intelligence differs from cognitive intelligence. (p. 15)

The developmental process of an individual's EQ skills is still an ongoing debate. Simmons and Simmons (1997) affirmed Maslow's identification of the five basic human needs. These needs include survival, safety, belonging, respect, and self-actualization. Together, "these needs motivate us to develop our emotional intelligence. [EQ] is developed as we find ways to cope with our environment to meet these basic needs." (p. 21).

Along with Maslow's thoughts, the evolution of EQ has continued to bring new insights into various aspects of human development. Bernet's (1996) research found:

...the lack of EQ skills, or emotional illiteracy, lowers team effectiveness and creates dysfunctional team interactions, and that the most effective performers within large organizations are often those with the best networking skills. (p. 1)

As EQ becomes more popular and its effect is noticed in the public and private sector, one might argue that its value will increase. EQ's impact on large organizations such as the Navy make this research very timely. Goleman (1995) sheds light on the

increased visibility on EQ research which he calls the "scientific harvest" which has allowed him to write his book. (p. xi)

Cooper (1996) gives merit to the revolution in business management to a "series of studies on emotional intelligence indicating that people who are intellectually the brightest are often not the most successful, either in business or their personal lives." (p. xi).

The following sections examine the research on EQ in the areas of academics, personal conduct, performance ratings, and gender influences. Much of the research involves studies of children since there is significantly less research on the collegiate cohort. Some inferences will be drawn due to this current limitation in the study of EQ.

B. ACADEMICS AND EQ

This section deals with the role of emotional intelligence in the academic environment. Much of the research regarding EQ and academics involves studies of children, which are not a focal point of this thesis. However, such information can be seen as relevant to gain a broader view of emotional intelligence and human development. For further analysis of child academic development, see Goleman (1995, pp. 189-261) and Salovey and Sluyter (1997, pp. 35-92, 168-232).

In the collegiate world, one could effectively argue that academics are often a primary consideration when judging an individual's success. On the other hand, Goleman (1995) suggests "one of psychology's open secrets is the relative inability of

grades...despite their popular mystique, to predict unerringly who will succeed in life." (p. 34).

Academic achievement is normally associated with cognitive skills. Goleman suggests certain strong emotions may distract one's ability to concentrate on academic problem solving. As a result, if academic prowess is a critical factor of overall success then one might look at how emotions may play into this process.

Goleman (1995) reports findings from neuroscientists who use the term "working memory" to describe the ability of one's brain to function in a manner which will help cognitive thinking. Certain essential facts required to solve problems are stored in the "working memory" to enable individuals to solve complex problems on a test. However, strong emotions (e.g., anxiety, anger, etc.) can serve to disrupt the brain's normal patterns of thought and cause "neural static." Goleman goes on to describe this static as "sabotaging" the brain's ability to "think straight" and "can create deficits [in] a child's intellectual abilities, crippling the capacity to learn." (p. 27).

Goleman cites Harden and Pihl's (1995) study to support his assertion that strong emotions can influence academic performance:

...primary school boys who had above-average IQ scores but nevertheless were doing poorly in school were found via these neuropsychological tests to have impaired [mental] functioning. They also were impulsive and anxious, often disruptive and in trouble...these children [were] at higher risk for problems like academic failure....(p. 27).

In another effort to examine the ability to use mental skills to solve academic problems, Goleman (1995) cited research which found “goal-directed self-imposed delay of gratification” to be essential in emotional intelligence. In other words, one’s ability to focus on the task at hand, despite other competing goals, exemplifies delayed gratification and task accomplishment. Furthermore, such research suggested that the ability to focus on a particular problem (e.g., solving an algebraic equation) was a direct reflection on one’s ability to effectively use their “other mental capacities.” (p. 83).

When emotions such as anxiety are overwhelming, studies have shown that a person’s ability to concentrate on the given task may falter. Goleman (1995) notes the following:

...126 different studies of more than 36,000 people [which] found that the more prone to worries a person is, the poorer their academic performance, no matter how measured – grades on tests, grade point average....” (p. 84).

While strong negative emotions may be detrimental to academic performance, some consider strong positive emotions an attribute of academic success. Specifically, studies have shown that optimism and hope can be beneficial to scholastic achievement.

Goleman (1995) cites a 1984 study at the University of Pennsylvania that examined the records of 500 members of the incoming freshman. The study found that “...the students’ scores on a test of optimism were a better predictor of their actual grades in the freshman year than were their SAT scores or their high school grades.” The

researcher, Martin Seligman (1987), concluded "...It is the combination of reasonable talent and the ability to keep going in the face of defeat that leads to success..." (p. 88)

Goleman (1995) reported on a related study, which emphasized the importance of hope in determining academic success. The college students were given the following hypothetical scenario:

Although you set your goal of getting a B, when your first exam score, worth 30% of your final grade is returned, you have received a D. It is now one week after you have learned about the D grade. What do you do? (p. 86)

From the results of this study, the researcher, Snyder (1991), determined that hope was a better predictor of first-semester grades than SAT scores (p. 86). Snyder explained this phenomenon by stating, "Students with high hope set themselves higher goals and know how to work hard to attain them...." Hope was defined as 'believing you have both the will and the way to accomplish your goals [e.g., academic success]' (p. 86). Snyder concluded that when you "...compare students of equivalent intellectual aptitudes on their academic achievements, what sets them apart is *hope*." (p. 87, emphasis added).

While optimism and hope may be contributing factors to academic success on the college campus, one must ask if Academics are the quintessential predictor of success in the workplace. A Bell Labs study conducted by Kelly and Caplan (1993) demonstrated otherwise.

Goleman (1995) gave an account of the Bell Labs study, which looked at one division at the labs. This division consisted of very complicated electronic engineering

that required most of work to be accomplished in teams of 5 to 150 engineers. The complexity of the field required the engineers to work together and tap on each person's experience/knowledge. Managers and peers were asked to identify the 10 to 15 percent of engineers who stood out as stars.

Kelly and Caplan concluded:

...based on a wide range of cognitive and social measures, from standard tests for IQ to personality inventories, there's little meaningful difference in innate abilities...As it develops, academic talent was *not* a good predictor of on-the-job productivity nor was IQ (p. 162).

Instead of academic talent being the pivotal point for occupational success, Kelly and Caplan's study found the "stars" were able to: create a rapport with a network of strategic people; almost always get a better response time than "non-stars" when asking others for help; are viewed as residential experts in given areas; take the initiative in starting new projects; and build effective teams. (pp. 161-163)

Another premise which warrants further examination is Goleman's (1995) assertion that emotions can overwhelm concentration and cause people to not think clearly. Goleman calls this process neural "hijacking."

However, Goleman is not the first to project such a notion. For example Schaffer, Gilmer, and Schoen (1940) suggested that emotions and intelligence are counter-productive to one another. Emotions were seen as inherently destructive in nature to cognitive thought (pp. Xii, 521).

Mayer and Salovey (1997) took the opposite stance and "...view emotions of all sorts as potentially contributing to thought rather than disorganizing it." (p. 9). They support Mandler's theories behind a human's ability to process information by stating,

In many instances,..., extreme emotional reactions promote intelligence by interrupting ongoing [brain] processing and directing attention toward what may be important. In this sense they [emotional experiences] prioritize cognition. (p. 9)

Herein lies a more balanced approach to the neural "hijacking" which Goleman seems to emphasize.

Sutarso and Toto (1996) administered the Emotional Intelligence test created by Baggett, Sutarso, and Tapia to 138 students at the University of Alabama. Their data focused on three areas of EQ which were compassion, self-awareness, and attunement.

Based on the data, they concluded:

There was not enough evidence to say that there was an effect of variable grade point average (GPA) to the 3 factors of EQ. These findings were consistent with the statement that EQ and IQ are separate competencies (Ekman 1992; Goleman 1995; Salovey and Mayer 1990) (p. 13).

As further research continues to find the importance of various aspects of emotional intelligence, a stronger correlation may be made which can determine the exact nature of success in the work environment. Perhaps the cognitive measurements such as grades continue to be widely used because they represent an easier appraisal system.

C. CONDUCT AND EQ

This section describes the role of emotional intelligence in the conduct of individuals. Conduct, in this case, refers to one's ability to control behavior and conform to rules. There is a paucity of research in this area. Therefore, many of the arguments posed below are from a philosophical or anecdotal perspective.

One's conduct, also known in the Navy as "good order and discipline", is an integral factor at the Naval Academy (COMDTMIDNINST 1610.2A, p. 1). During the developmental process at the Academy, one might argue that conduct is a reflection of one's character.

Additionally, one purpose of the Naval Academy is "to provide the Naval Service with leaders of *character* who will serve the nation in peace and war." (*Reef Points* (1998), p. 20, emphasis added).

Goleman (1995) and Simmons and Simmons (1997) suggest that "character" and "emotional intelligence" have a history of being interchangeable expressions. (pp. 285, 2 respectively)

Character is defined by *Webster's Dictionary* (1987) as "moral excellence." (p. 227). Character and moral development are dominant themes taught at the Naval Academy. Hence, *Reef Points* (1998) state the Naval Academy's mission includes the moral development of its students. (p. 20) Hence, the conduct of the midshipmen becomes an important factor in determining the Academy's developmental success of establishing norms for correct behavior.

In essence, one could argue that an aspect of moral character is exemplified through one's conduct.

Goleman postulates that the "...arguments for the importance of emotional intelligence hinges on the link between sentiment, character, and moral instincts." (p. xii).

Furthermore, Goleman (1995) conveys John Dewey's thoughts that moral education is most effective when lessons are taught through real events instead of theoretical lessons.

Such a notion is also consistent with Cooper's (1997) view of emotional literacy where knowledge of one's own emotions through examination of ongoing events is paramount (p. 34). Cooper argues that one should be cognitively aware of the surrounding events in an effort to fully process one's actual thoughts and feelings.

Goleman (1995) further argues character's primary attribute is self-discipline. He further quotes Lickona (1991) who said, "We need to be in control of ourselves – our appetites, our passions- to do right by others. . . It takes will to keep emotion under the control of reason." (p. 285).

Goleman (1995) also notes Etzioni's (1994) perspective that schools have a

...central role in cultivating character by inculcating self-discipline and empathy, which in turn enable true commitment to civic and moral values...In this sense, emotional literacy goes hand in hand with education for character, for moral development....(p. 286).

Goleman cites Brazelton's (1992) report that points out school success is predicted by emotional and social measures which includes knowing how to control the impulse to break the rules and to delay gratification. (p. 193).

In a similar manner, Brenner and Salovey (1997) cited numerous studies that have "...found a positive relationship between maladaptive styles of emotion regulation and conduct problems (e.g., fighting, lying, and defiance). (p. 180). Collectively, these studies suggest children with conduct problems may control their anger in an maladaptive manner. Although the studies involved primarily children, the findings may be useful in gaining a broader understanding of emotional development.

As with academic performance, Goleman (1995) cites the following study to support his assertion that strong emotions can influence one's conduct:

...primary school boys who had above-average IQ scores but nevertheless were doing poorly in school were found via these neuropsychological tests to have impaired [mental] functioning. They also were impulsive and anxious, often disruptive and in trouble...these children [were] at higher risk for problems like...criminality. (p. 27)

D. PERFORMANCE AND EQ

This section deals with the role of emotional intelligence in the general success of individuals at work and in life. Peers, senior midshipmen, and officers evaluate midshipmen success. Each semester a midshipmen's chain of command judges success through evaluations and performance grades.

Bar-On (1997) defines success as "the end-product of that which one strives to achieve and accomplish." (p. 15). Admittedly, such a definition is very subjective. The evaluation process that midshipmen receive consists of many different levels (subordinates, peers, and seniors) of review and is designed to strive toward objectivity.

Mayer and Salovey (1997) argue:

given that emotional intelligence has been studied so little, not much is known about what it predicts. Psychologists recognize that general intelligence predicts some aspects of *success* – *defined as academic achievement and occupational status*. General intelligence is often said to account for between 10% and 20% of such success, leaving about 80% to 90% of it to be explained by other factors. (p. 17, emphasis added)

Although subjectivity in defining success remains a constant battle, some writers have suggested that interpersonal skill plays greatly into the success of individuals. Goleman (1995) stated that interpersonal skills are the "virtuoso" of corporate success. (p. 149)

Hatch (1997) cites several studies that suggest interpersonal skills may be also be independent of conventional measures of cognitive and academic achievement. Hence, the ability to actually measure an important skill like interpersonal skills may not be fully realized in current tests.

Hatch (1997) further finds that interpersonal skills seem to include a core group of attributes. For example, a core set of interpersonal skills would include a sensitivity to social and/or emotional cues; an ability to generate appropriate responses to those cues; and the ability to achieve a desired effect on others by responding effectively. (p. 72)

Although interpersonal skills are regarded as an effective measure of emotional intelligence, certain societal trends may be working against the potential development of interpersonal skills. Goleman (1995) references Martin Seligman's (1991) work that describes this particular notion:

For the last thirty or forty years we've seen the ascendancy of *individualism* and a waning of larger beliefs in religion, and in supports from the community and extended family. That means a *loss of resources* that can buffer you against setbacks and failures. . . But if you have a larger perspective, like a belief in God and an afterlife, and you lose your job, it's just a temporary defeat. (p. 241, emphasis added)

The "loss of resources" mentioned above seems crucial in today's business environment. Cooper and Sawaf (1997) report findings from the Center for Creative Leadership in which "insensitivity to others" or the loss of human resources as the most cited cause for the failure of executives and leaders (p. 51).

Williams and Sternberg (1988) studied the impact of non-cognitive skills on teams. They found the lack of non-cognitive (emotional illiteracy) among members created a dysfunctional nature to the team and lowered the "group IQ." Teams with low IQs had more difficulty in solving problems.

In summary, one might say that the people element of leadership is significant no matter how success is defined. The importance of interpersonal skills may reside in the nature of the job at hand.

E. GENDER AND EQ

This section deals with the role of emotional intelligence as it relates to gender. As mentioned earlier, there have been some that regard interpersonal skills as an essential element for effective job performance. (e.g., Goleman 1995, Halter 1997).

Porter and Stone (1995) reported women focus more on interpersonal relationships while men were more interested in work-related and miscellaneous problems. In other words, women displayed more acuity to problems associated with interpersonal relations than men did. Men had relatively little concern for interpersonal conflicts (e.g., personality conflicts)." (Sutarso and Toto, 1996, p. 6).

Miller, Silverman, and Falk (1994) looked at gender differences in emotional development and reported women scored higher on "emotional potential" and their level of emotional development while men were higher on intellectual potential. (Sutarso and Toto, 1996, p. 7)

Sutarso and Toto's (1996) report on the 138 students from the University of Alabama also showed women scoring higher in compassion, empathy, self-awareness, and self-control. (p. 10)

In a 1996 interview with *People*, Goleman attributed the gender differences of emotional intelligence to the current culture. He suggested that women are raised to be sensitive to people's feelings which gives them a better grasp of empathy. On the other hand, men are better at distracting themselves during turbulent times (e.g., going to a ballgame) while women will contemplate their current distressing situation. (p. 2)

Bernet (1996) found women scored higher than men did in two of the three primary areas he tested. In terms of intrapersonal understanding, women tended to score slightly higher. These intrapersonal skills were based on one's ability to "...integrate awareness of the fine nuances of body feelings that precede or accompany the awareness of emotions."

Also, he included in the intrapersonal skills the "emphasis on evaluation" where one is measured by the ability to reflect and understand what is happening to oneself from the viewpoint of an outside observer. (p. 7)

Women scored moderately lower in the area Bernet calls "looking to logic." This segment of emotional intelligence emphasizes logic in conjunction with what is felt and how one will respond to those feelings. In other words, women were less likely to lean on intellect to "control or avoid the potential discomfort or ambiguity" found in various problems. (p. 7)

One might find difficulty in saying women and men will always differ significantly on their skills of emotional intelligence. However, it is interesting to note some of the perhaps cultural or innate tendencies each sex leans toward in the recent research. As the research continues, it will be helpful to see how these nuances are further supported.

F. CONCLUSION

The various elements of EQ are continuing to evolve. There continues to be a wide range of thoughts on how to define EQ. However, there does seem to be a general consensus that interpersonal and intrapersonal skills are the bedrock to EQ.

Current systems of cognitive measurement (e.g., SAT, GPA, and achievement tests) continue to dominate society's view of performance measurement. As the research continues, EQ will be better understood and perhaps quantified in a manner which will help broaden the normal view of success.

In addition, as more is understood about EQ, men and women will be educated on their personal strengths and weaknesses. Ideally, an increased awareness will facilitate a better understanding of how the sexes conduct themselves and thereby foster a more harmonious work environment.

III. BARON'S EQ MODEL AND INVENTORY

A. INTRODUCTION

In the summer of 1996, the Naval Academy class of 2000 completed the BarOn Emotional Quotient Inventory.

This chapter provides a brief overview of the characteristics of the BarOn Inventory. Specifically, emphasis is placed on the description of the Inventory's target population, the basic construct of the Inventory, and a brief description of how the EQ subscales (categories) are measured. Also, BarOn's argument for accepting the Inventory's validity and reliability will be examined.

Appendix B gives a detailed explanation of the 15 major conceptual EQ subscales in which the Inventory is based.

B. WHAT POPULATIONS ARE ELIGIBLE TO TAKE THE BARON EQ INVENTORY?

The BarOn EQ Inventory reflects BarOn's (1997) 17 years of research in the area of emotional intelligence. Throughout his research, he has attempted to provide a cross-cultural approach by working with individuals with varying ethnic backgrounds from at least 12 countries. (pp. xiii, 22)

BarOn (1997) suggests the results of his multi-cultural studies lend to the Inventory being taken by members of numerous cultures, both genders, and those 16 years of age and older. (p. 22)

C. WHAT IS THE BASIC CONSTRUCT BEHIND THE BARON EQ INVENTORY?

The BarOn Inventory seeks to provide a measurement of one's intelligence beyond the IQ. BarOn argues that a fundamental characteristic of EQ is the ability to apply common sense to the immediate situation. In some form, the ability to measure the application of common sense choices must be achieved.

To help develop the understanding of one's intellect, BarOn cites Wechsler's (1940) idea of "nonintellectual aspects of general intelligence." Wechsler was attributing significance to the non-IQ-related elements of one's overall intelligence. For example, a person possessing a high IQ may not get along well with others because of a lack of interpersonal skills. Although the person may enjoy a superior IQ, a low EQ may keep the individual from being an effective leader in a socially oriented group.

Goleman (1995) supports the idea of quantifying EQ to help determine its importance. He notes there is a small correlation between IQ and certain features of one's EQ but the relationship is such that IQ and EQ are clearly independent.

Wechsler (1958) viewed intelligence as more than just one's IQ. He coined the phrase "general intelligence" and described it as "...the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his [or her] environment." In essence, BarOn (1997) purports that the BarOn EQ Inventory tries to provide an "...empirically developed, multifactorial, and theoretically eclectic test of emotional intelligence." (p. 7). In other words, the BarOn EQ Inventory seeks to measure

a significant portion of one's general intelligence that is not found solely in the construct of the IQ.

Table 3.1 provides a broad overview of the components and subscales of EQ, which are measured by the BarOn EQ Inventory.

INTRAPERSONAL COMPONENTS

Emotional Self-Awareness (ES)
Assertiveness (AS)
Self-Regard (SR)
Self-Actualization (SA)
Independence (IN)

INTERPERSONAL COMPONENTS

Empathy (EM)
Social Responsibility (RE)
Interpersonal Relationship (IR)

ADAPTABILITY COMPONENTS

Problem Solving (PS)
Reality Testing (RT)
Flexibility (FL)

STRESS MANAGEMENT COMPONENTS

Stress Tolerance (ST)
Impulse Control (IC)

GENERAL MOOD COMPONENTS

Happiness (HA)
Optimism (OP)

Table 3.1 From BarOn (1997) EQ
Inventory's Components and Subscales

D. HOW ARE THE SUBSCALES OF THE BARON EQ INVENTORY MEASURED?

The Inventory is made up of 133 questions which have a five point Likert scale ranging from "Not True of Me" to "True of Me."

Raw scores are translated into standard scores with a mean of 100 and a standard deviation of 15. A score greater than 100 indicates a "emotionally intelligent" person while a score of less than 100 represents a "need to improve" in that specific area. (BarOn 1997, p. 4)

Another benefit of standardizing the Inventory is that it allows comparison through normative data. Chapter IV will contrast selected results of the class of 2000 against other North American individuals.

E. PSYCHOMETRIC PROPERTIES: IS THE BARON EQ INVENTORY RELIABLE AND VALID?

BarOn (1997) describes reliability as "...how consistently it [the BarOn EQ Inventory] measures what it is supposed to measure [i.e., emotional intelligence and its subscales]." (p.95) On the other hand, validity seeks to determine if the Inventory is properly measuring the characteristics of EQ that it was designed to measure.

The BarOn EQ Inventory used two tests of reliability: internal consistency and retest reliability. BarOn (1997) notes that internal consistency "...refers to the degree to which all items of a particular scale measure the same construct." (p.95) In other words, each of the subscales must have questions that point the respondent in the same direction.

Each of the 133 questions was crafted from the definitions of the subscales found in Appendix B.

The alpha coefficients for each subscale ranged from .69 (Social Responsibility) to .86 (Self-Regard). Since the overall coefficient average was .76, BarOn concluded that the test indicated a "very good reliability."

The second measure of reliability was the "retest reliability" which refers to the Inventory's ability to provide consistent results over time. In this test, the primary consideration is the respondent's consistency in answering the questions over a given period of time. BarOn used a one month and four month interval to note the differences in a control group. The retest interval was not greater than four months so that other influences such as "developmental changes" would not cloud the findings. (p. 96)

The study found the reliability coefficient after one month was .85 and after four months, .75. BarOn concluded that these results ensured "more than adequate" reliability.

It should be noted that the "developmental changes" which BarOn referred to might be influential in the results of the study on midshipmen. Their Inventory was taken nearly three years prior to the collection of some of the relevant performance data. The full extent to which other factors beyond their EQ may have influenced the data is not known.

The developmental influences may include but are not limited to one's normal maturation process, the Naval Academy's environmental influences which includes

increased responsibility over time, and the repeated exposure to varying influences during the summer training experiences.

In summary, it is unknown to what extent these or other factors may have influenced the respondent's EQ over the past three years.

The second psychometric property that will be discussed is validity. There are nine different aspects of validity which were addressed through the BarOn model. BarOn (1997) states:

These particular validity studies were specifically carried out to see if the items appear to be (face validity) capturing the essence of each scale and subscale (content validity), to examine the degree to which the inventory's original structure is confirmed (factor analysis), to verify the extent to which the subscales are measuring what they are supposed to measure rather than something else (construct, convergent, divergent, and criterion-group validity), and to assess the extent to which they can identify and differentiate among people who are more emotionally intelligent from those who are less emotionally intelligent (discriminant validity), and if they can predict emotionally intelligent behavior in the future (predictive validity). (p. 97)

BarOn (1997) admits that it may be impossible to develop a perfect model of emotional intelligence. However, he argues that a rigorous testing of each of the nine validity tests confirm the structural integrity of the BarOn EQ Inventory.

Furthermore, BarOn ran multiple correlations with the Inventory's subscales and the scores of ten other personality inventories. These tests were administered with the Inventory in six countries (Argentina, Canada, Germany, Israel, South Africa, and the United States) over a 12-year period (1985-1997). (p. 109)

BarOn concluded that the correlation coefficients "give ample support" that the Inventory measures the constructs that it was designed to measure. Also, he notes the coefficients are not too high as to suggest that the BarOn Inventory duplicates any of the existing inventories.

F. CONCLUSION

Over 17 years of research and experience have led to a very functional EQ Inventory. BarOn (1997) suggests its usefulness could apply in the arenas of corporations, education, psychological clinics, medical, research, and preventive programs.

Researchers such as Wechsler in the 1940's provided insight into fully understanding one's total intelligence. As noted earlier, he argued one's whole intelligence was comprised of more than just IQ. The BarOn Inventory provides the synthesis of numerous studies of emotional intelligence and gives the model seen in Table 3.1.

BarOn (1997) admits that the results of such an inventory, though extremely useful, should be viewed as a means of highlighting a particular area and then further examine these areas by other methods to render a broad understanding of the individual. (p. 11)

The Inventory also gains value from its cross-cultural exposure. Defining EQ, as seen in Chapter II, is still difficult. Adding the research dimension which spans 12 countries should help to normalize a cultural bias.

Finally, rigorous testing of the BarOn model has shown that it is both a reliable and valid instrument. Showing strong evidence for reliability and validity gives the BarOn EQ Inventory credibility for current and future research.

A thorough discussion on the findings of the class of 2000 respondents is reviewed in Chapter IV.

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IV. USNA CLASS OF 2000 DATA ANALYSIS

A. INTRODUCTION

This chapter reports the results of the BarOn (1997) EQ Inventory for the United States Naval Academy class of 2000. The sample consists of 1043 out of a total of 1291 freshman students. Each of the major hypotheses regarding the relationship of EQ to academic grades, conduct grades, performance results, attrition, and gender are examined.

The BarOn EQ Inventory, through the initiation of Multi-Health Systems Inc., was administered to the freshmen at the Academy as part of a national standard sample.

BarOn's (1997) model, as reported below, is meant to identify areas which reflect a "potential for performance." (p. 15). All findings are meant to provide areas of emphasis rather than conclusions to causal factors which affect performance. For example, females scored higher on Empathy but it can not be said that females are always more able to express empathy than males. Nor do the findings suggest that a change needs to occur to "correct" a trend. Rather, the findings can help as a matter of background for better understanding the nuances of a group's emotional intelligence in general.

BarOn (1997) also notes the importance of the proper interpretation of the data. One must be careful to avoid the direct assumption that a linear relationship is involved with emotional intelligence. In other words, a higher score doesn't always mean a greater level of emotional intelligence. BarOn recommends viewing the data from the

perspective of "optimal levels and ranges." For example, BarOn states that a megalomaniac has an exaggerated form of positive self-regard. Although their self-regard subscale would be high, there may exist an improper overall emotional balance which would translate into a less emotionally intelligent person.

B. METHODOLOGY

Each hypothesis attempts to address the relationship of EQ to some form of performance measurement at the Naval Academy. All analyses were conducted using the .05 significance level.

Initially, a reliability test was conducted to verify the ability of the BarOn test to consistently measure what it is designed to measure. Out of BarOn's five components of EQ, four out of the five components were consistent for this sample (see Table 4.1) at the .7 or higher level. Since the EQ component of Stress Management scale was not as reliable as the other components for this sample, it will not be included in further data analysis.

Reliability Tests for BarOn's Five Components

INTRAPERSONAL .8808

Emotional Self-Awareness (ES)
Assertiveness (AS)
Self-Regard (SR)
Self-Actualization (SA)
Independence (IN)

INTERPERSONAL .8307

Empathy (EM)
Social Responsibility (RE)
Interpersonal Relationship (IR)

ADAPTABILITY .8048

Problem Solving (PS)
Reality Testing (RT)
Flexibility (FL)

***STRESS MANAGEMENT .6527**

Stress Tolerance (ST)
Impulse Control (IC)

GENERAL MOOD

.7693

Happiness (HA)
Optimism (OP)

*Failed test for reliability. Component removed from further analysis.

Table 4.1 Reliability Test for BarOn's EQ Inventory

The dependent and independent variables used in this study are listed in Table 4.2.

DEPENDENT VARIABLES		VARIABLE
Academic Grades		CUM_QPR
Performance Grades		APT_QPR
Conduct Grades		X_QPR
Attrition		ATTRITE1
INDEPENDENT VARIABLES		
Intrapersonal Component		INTRA
Interpersonal Component		INTER
Adaptability Component		ADAPT
General Mood Component		MOOD
Total EQ (sum of four Independent variables)		TOTAL

Table 4.2 Dependent and Independent Variables

Table 4.3 shows the results of the regressions that were conducted to help determine EQ's relationship to academics, conduct, general performance, and attrition.

	R ²	"F" Value	Beta Coeff.	"t" Value	Sig. (p < .05)
H₁: ACADEMICS					
PLAN I (Eq. 4.a)	NS	NS	N/A	N/A	NS
INTRA			NS	NS	NS
INTER			NS	NS	NS
ADAPT			NS	NS	NS
MOOD			NS	NS	NS
TOTAL			NS	NS	NS
PLAN II	.014	.882	N/A	N/A	.573
Optimism			.00319	2.130	.034
H₂: CONDUCT					
PLAN I (Eq. 4.b)	.016	2.724	N/A	N/A	.019
INTRA			NS	NS	NS
INTER			.003	2.125	.034
INTER Subscales (Eq. 4.c)	NS	NS	N/A	N/A	NS
Empathy			NS	NS	NS
Interpersonal Relationships			NS	NS	NS
Social Responsibility			NS	NS	NS
ADAPT			NS	NS	NS
MOOD			NS	NS	NS
TOTAL			NS	NS	NS
PLAN II	.034	2.177	N/A	N/A	.009
Interpersonal Relationships			.00375	2.890	.004
Social Responsibility			.00229	2.060	.040
Happiness			-.00276	-2.668	.008
H₃: PERFORMANCE					
PLAN I (Eq. 4.d)	.014	2.350	N/A	N/A	.039
INTRA			NS	NS	NS
INTER			NS	NS	NS
ADAPT			NS	NS	NS
MOOD			NS	NS	NS
TOTAL			NS	NS	NS
PLAN II	.035	2.285	N/A	N/A	.006
Social Responsibility			.00661	2.633	.009
Flexibility			-.00428	-2.397	.017
Optimism			.00437	2.613	.009

	R ²	"F" Value	Beta Coeff.	"t" Value	Sig. (p < .05)
H₄: ATTRITION					
PLAN I (Eq. 4.e)	.031	6.507	N/A	N/A	.000
INTRA			NS	NS	NS
INTER			-.00658	-2.074	.038
ADAPT			-.00574	-2.606	.009
MOOD			NS	NS	NS
TOTAL			NS	NS	NS
PLAN II (Eq. 4.f)	.059	4.904	N/A	N/A	.000
Empathy			.00387	3.041	.002
Social Responsibility			-.00411	-2.690	.007
Reality Testing			-.00513	-3.732	.000
Happiness			-.00481	-3.359	.001

1. PLAN I is the test for EQ component significance.
2. PLAN II is the test for EQ subscale significance.
3. NS = A non-significant component at the .05 level.
4. Subscales not listed if test showed no significance at .05 level.

Table 4.3 Results of Regressions for Academic, Conduct, Performance, and Attrition.

C. H₁: EQ HAS NO RELATIONSHIP TO GRADE POINT AVERAGE

1. Method

The Naval Academy uses a 0 to 4.0 scale grading system. The variable (CUM_QPR) represents the average of the student's academic grades over five semesters.

The results are divided into two parts. The first part focuses on determining explanations through the use of major EQ components. The second part emphasizes the subscales.

In Part I, an initial linear regression was conducted with the dependent variable of CUM_QPR and the independent variables of the four components of EQ (i.e., interpersonal, intrapersonal, adaptability, and general mood) and the total EQ score. The total EQ score is the summation of all four components.

If significant EQ components were identified, a more detailed breakdown of the component's subscales was conducted through a second linear regression.

In Part II, an additional regression was run with the same dependent variable but all of the subscales were used as independent variables.

2. Results

A. Part I: By focusing on components alone, the R^2 of equation 4.a was .006 with an $F(5, 815) = .963$, $p = .439$. In other words, H_1 is accepted. The model used does not show a significant relationship between EQ and academic grades.

$$\text{CUM_QPR} = \text{INTRA} + \text{INTER} + \text{ADAPT} + \text{MOOD} + \text{TOTAL} \quad (\text{equation 4.a})$$

None of the EQ components were significant.

Part II: The equation that focused on subscales had an R^2 of .014 with an $F(13, 808) = .882$, $p = .573$.

Only the Optimism subscale proved significant with a t of 2.13 and $p = .034$.

3. Discussion

As a whole, none of the EQ components proved to be significant in explaining academic performance. Perhaps that is simply a reflection of the BarOn model and its attempt to measure non-cognitive performance (BarOn 1997, p. 15).

Conversely, a lack of significant EQ components also gives credence to the assertion that EQ and IQ are separate abilities (e.g., Ekman 1992, Goleman 1995, Salovey & Mayer 1990, and Sutarso & Toto 1996).

Furthermore, only the Optimism EQ subscale showed a significant, positive association to academic performance.

This finding seems to support the idea that those who do well in academics have the ability to keep a positive attitude throughout various academic and life challenges.

As discussed in Chapter II, Goleman (1995) also presented studies that showed pessimism (the opposite of optimism) resulted in lower academic performance. In other cases, Goleman notes that optimism was shown to be a good predictor of academic performance.

Additionally, BarOn (1997) describes optimism as "...a measure of hope in one's approach to life." (p. 19). Goleman also references the results of a study that supports the characteristic of "hope" as being beneficial to scholastic achievement. Again, hope proved to be a good predictor of academic success. Goleman cited Snyder (1991) who defined hope as "...believing you have both the will and the way to accomplish your goals [e.g., academic success]." (p. 86).

Perhaps the traits of optimism and hope foster a mindset which help individuals concentrate on academic and life success rather than being distracted by setbacks.

Mayer and Salovey (1997) argued that emotions could potentially be beneficial to cognitive thinking. Emotional experiences can serve to "prioritize cognition" so that the brain "knows" what to focus on during certain encounters.

Consequently, optimism and hope may serve to regularly focus the mind on a track conducive to academic disciplines.

D. H₂: EQ HAS NO RELATIONSHIP TO CONDUCT GRADES

1. Method

Conduct grades at the Naval Academy are assigned each semester and are based on the number of demerits received if found in violation of an Academy regulation.

The grades used in this study are an average of grades received over five semesters and use a 0 to 4.0 scale.

In Part I, as with the first hypothesis, an initial linear regression was conducted with the dependent variable of X_QPR (conduct grades) and the independent variables of the four components of EQ (i.e., interpersonal, intrapersonal, adaptability, and general mood.)

If significant EQ components were identified, a more detailed breakdown of the component's subscales was conducted through a second linear regression.

In Part II, an additional regression was run with the same dependent variable but all of the subscales were used as independent variables.

2. Results

A. Part I: The R^2 of equation 4.b was .016 with an $F(5, 815) = 2.724$, $p = .019$.

In other words, H_2 is rejected. The model used shows a significant relationship between EQ and conduct grades.

$$X_{QPR} = \text{INTRA} + \text{INTER} + \text{ADAPT} + \text{MOOD} + \text{TOTAL} \quad (\text{equation 4.b})$$

One EQ component, Interpersonal, was found to be significant, $t = 2.125$, $p = .034$.

The Interpersonal component was then broken down into its subscales. The subscales were then used as independent variables as depicted in equation 4.c.

$X_{QPR} = EM + IR + RE$ (**equation 4.c**) where $EM =$ Empathy, $IR =$ Interpersonal Relationships, and $RE =$ Social Responsibility.

The R^2 of equation 4.c was .003 with an $F(3, 818) = .891$, $p = .445$. Although the overall equation (i.e., equation 4.b) is found to be significant, none of the subscales proved to be significant at the .05 level.

B. Part II: The equation that focused on subscales for conduct had an R^2 of .034 with an $F(13, 808) = 2.177$, $p = .009$.

Interpersonal relationships ($t = 2.89$, $p = .004$), social responsibility ($t = 2.060$, $p = .040$), and happiness ($t = -2.668$, $p = .008$) were significant. The former two were positive while the latter was negative in their relationship to conduct grades.

3. Discussion

Conduct, in this case, refers to one's ability to control behavior and conform to rules. The research in this area shows a lack of substantial quantitative work. Many of the arguments are from a philosophical or anecdotal perspective.

Only the EQ Interpersonal component was found to be significant. As a whole, this finding suggests that the BarOn model for Interpersonal skills was a factor. When the Interpersonal component was broken down into its subscales, none of them proved significant as subsets of the Interpersonal component.

However, when the subscales were included in the comprehensive look at all EQ subscales. Two of the three Interpersonal components (i.e., Interpersonal Relationships and Social Responsibility) were significant. Happiness, a General Mood Component, also proved to be significant in the subscale regression.

BarOn (1997) describes the EQ subscale of Interpersonal Relationships in terms that emphasize "social interchange" and "satisfying relationships." The data show that people who are stronger in interpersonal relationships have higher conduct grades. One might argue that the people who tend toward building solid personal relationships would be less likely to break the rules.

BarOn further notes that those who are strong in the area of personal relationships generally have sensitivity toward others (i.e., empathy) and a "positive expectation concerning social intercourse." Perhaps the people who do well in conduct have an

ability to control their actions because they do not want to cause friction with other people. (p. 17)

As discussed in Chapter II, Goleman (1995) emphasized the trait of self-discipline in building character and moral strength. He quoted Lickona (1991) who said, "we need to be in control of ourselves – our appetites, our passions – to do right by others..." (p. 285).

Goleman (1995) also notes the importance of the role of schools to develop character through "empathy" which will help to build moral strength. One might say that moral strength is sometimes preceded by an ability to focus on the best outcome for others rather than an egocentric alternative.

The Social Responsibility subscale also proved significant and reflects some of the same findings one might expect from the Interpersonal Relationships subscale.

BarOn (1997) defines Social Responsibility as "the ability to demonstrate oneself as a cooperative, contributing, and constructive member of one's social group." (p. 17).

In this author's opinion, this trait clearly reflects part of the "spirit" of the Naval Academy conduct system.

Respondents who scored high in Social Responsibility did indeed have higher conduct scores. BarOn suggests this EQ trait will manifest itself in ways such as community-oriented activities, acting in accordance with one's conscience, and abiding by social rules.

Also, BarOn notes that people who score high in the area of Social Responsibility are more likely to see the big picture and consider what is best for the “good of the collective, not just the self.” As a result, midshipmen who score high in this area will generally perform well in terms of their conduct scores. Additionally, the general litmus test of promoting “good order and discipline”, as seen throughout military regulations and espoused in the Naval Academy Administrative Conduct Manual (p. 1), will likely be met by those who possess a high sense of Social Responsibility.

Finally, BarOn (1997) defines Happiness as “...the ability to feel satisfied with one’s life, to enjoy oneself and others, and to have fun.” (p. 18). The findings of this study show an inverse relationship between conduct grades and happiness. A higher score in Happiness is associated with a lower conduct grade.

There is little known research to explain this phenomenon. BarOn further describes “happy” people as being able to “let their hair down.” These people may tend to enjoy a leisurely approach to work and life in general. Interestingly, the Naval Academy can hardly be seen as an environment where a low-key approach to life is promoted as normative. One might suggest that the extensive academic, professional, and athletic demands placed on each midshipman is the antithesis of a leisurely lifestyle.

Perhaps this antithetical relationship may explain part of the inverse relationship between a sense of happiness and conduct. Those who are more prone to desire a leisurely lifestyle, which may equate into breaking a regulation (e.g., liberty policies), do so to achieve the temporary gratification of “letting their hair down.”

E. H_3 : EQ HAS NO RELATIONSHIP TO PERFORMANCE GRADES

1. Method

Performance grades at the Naval Academy are assigned each semester. The grades used in this study were those assigned by each company officer. Considerable deliberation goes into each grade and is based on overall performance of a midshipman. Such a determination also includes input from subordinates, peers, senior midshipmen, an enlisted advisor, and the company officer.

Similar to the previous hypotheses, Part I shows an initial linear regression was conducted with the dependent variable of APT_QPR (performance grades) and the independent variables of the four components of EQ (i.e., interpersonal, intrapersonal, adaptability, and general mood.) and total EQ.

If significant EQ components were identified, a more detailed breakdown of the component's subscales was conducted through a second linear regression.

As before, Part II provides an additional regression with the same dependent variable but all of the subscales were used as independent variables.

2. Results

A. Part I: The R^2 of equation 4.d was .014 with an $F(5, 815) = 2.350$, $p = .039$.

In other words, H_3 is rejected. The BarOn EQ model shows a significant relationship between EQ and performance grades.

$$\text{APT_QPR} = \text{INTRA} + \text{INTER} + \text{ADAPT} + \text{MOOD} + \text{TOTAL} \quad (\text{equation 4.d})$$

Although the above equation proved significant ($p = .039$), none of the EQ components were found to be significant.

B. Part II: The subscale regression had an R^2 of .035 with an $F(13, 808) = 2.285$, $p = .006$.

Social Responsibility ($t = 2.633, p = .009$), Flexibility ($t = -2.397, p = .017$), and Optimism ($t = 2.613, p = .009$) all proved significant.

3. Discussion

The results showed that none of BarOn's EQ components were statistically significant. However, the p value indicates that there is some significance in the overall model.

In the subscale regression, the data showed three distinct EQ subscales as significant: Social Responsibility, Flexibility, and Optimism.

In the previous sections some of the specific nuances of Social Responsibility and Optimism were discussed. Nonetheless, additional aspects of these characteristics provide valuable insight into the general performance in which midshipmen are viewed.

As a review, the performance grades are determined in part by the evaluation received by peers, senior midshipmen, senior enlisted, and officers.

BarOn (1997) shows that Social Responsibility measures the ability of a midshipman to be "cooperative, contributing, and constructive" among their social group. In other words, one could argue that a performance grade, which is partly received by the input of members from one's social group, would undoubtedly be biased toward those who are seen as constructively contributing to their respective group.

Several researchers have suggested that interpersonal skills are critical in the overall successful performance of individuals and teams (Goleman 1995, Hatch 1997, Cooper & Sawaf 1997, and Williams & Sternberg 1988).

BarOn explains Social Responsibility to be an integral part of interpersonal skills in which one has the ability to do things which contribute to the interests of others, promote socially enhancing ideas, and look toward the common good. A person who exhibits such qualities is likely to fare well in a performance evaluation that is strongly influenced by social contribution.

This study also shows that optimistic people tend to do well in performance evaluations. One may ask the question as to the source of optimism. The full extent of such a question is beyond the scope of this report, however, Goleman (1995) references a study which may shed some light on the subject.

Goleman quotes Seligman's (1993) study which reports:

For the last thirty or forty years we've seen the ascendancy of *individualism* and a waning of larger beliefs in religion, and in supports from the community and extended family. That means a *loss of resources* that can buffer you against setbacks and failures. . . But if you have a larger perspective, like a belief in God and an afterlife, and you lose your job, it's just a temporary defeat. (p. 241, emphasis added)

The "loss of resources" mentioned above might stem from a lack of faith in God. Additionally, a lack of social integration obtained by close friends and relatives is also important. Social Responsibility has shown to be significant in relation to performance perceptions of other people. Perhaps such a notion shows the importance of connectivity

among people. Those who are seen as being constructive members of a social group are graded favorably.

Furthermore, those who are optimistic are so for a reason. Perhaps they have a network of friends who are supportive throughout various life experiences.

This study also showed a negative relationship, in that those who are more flexible are less likely to receive good performance grades.

BarOn (1997) defines Flexibility as "...the ability to adjust one's emotions, thoughts, and behavior to changing situations and conditions." (p. 18).

No known research describes the relationship of flexibility to performance achievement. Intuitively, one could reason that such a relationship would be positively related. For instance, one might expect a group which characterizes performance to reward individuals who seek to adjust their perceptions without rigidity.

On the other hand, the Naval Academy fosters an environment that supports hundreds of unique military regulations. For instance, during the freshman year, midshipmen are expected to run through the hallways of the dorm without looking left or right, make 90 degree turns and shout a pro-Navy comment at every change in direction.

Surely an acculturation process occurs during the freshman year. Once the orientation has been accepted as the cultural norm, those who would suggest other methods may not be tolerated. In other words, those who are more flexible, open to, or promote new ideas may be seen as non-team players. Their willingness to go against

tradition and group norms may be seen as the antithesis of Social Responsibility. Such a person may be regarded as not cooperating or contributing to their social group.

F. **H₄: EQ HAS NO RELATIONSHIP TO ATTRITION**

1. **Method**

The total number of respondents in this study was 1039. Due to various reasons, 212 of these midshipmen have left the Naval Academy. This study did not intend to distinguish those who left voluntarily or involuntarily, rather it shall suffice that they are no longer students.

The analysis of all other sections includes the midshipmen who are still at the Academy after five semesters. This section includes the students who left.

In Part I, a linear regression was performed with the discriminant dependent variable of ATTRITE1 (1= attrite, 0 = retained). The independent variables of the four components of EQ (i.e., interpersonal, intrapersonal, adaptability, and general mood) and total EQ were used to determine variability.

In Part II, an additional regression with the same dependent variable but all of the subscales were used as independent variables.

2. **Results**

A. Part I: The R² of equation 4.e was .031 with an F(5, 1027) = 6.507, p = .000. In other words, H₄ is rejected. The BarOn EQ model shows a significant relationship between EQ and attrition.

$$\text{ATTRITE1} = \text{INTRA} + \text{INTER} + \text{ADAPT} + \text{MOOD} + \text{TOTAL} \quad (\text{equation 4.e})$$

The EQ components of Adaptability ($t = -2.074$, $p = .038$) and General Mood ($t = -2.606$, $p = .009$) proved significant.

Consequently, Adaptability and General Mood were further explored by using their subscales as independent variables as shown in equation 4.f.

ATTRITE1 = PROBLEM SOLVING + REALITY TESTING + FLEXIBILITY +
HAPPINESS + OPTIMISM (equation 4.f)

The R^2 of equation 4.f was .036 with an $F(5, 1028)$, $p = .000$. From the component breakdown, Reality Testing ($t = -3.536$, $p = .000$) and Happiness ($t = -2.686$, $p = .007$) were the only two EQ subscales which showed significance.

B. Part II: When the regression used the subscales alone as the independent variables, the R^2 rose to .059 with an $F(13, 1020) = 4.904$, $p = .000$.

Reality Testing ($t = -3.732$, $p = .000$) and Happiness ($t = -3.359$, $p = .001$) again showed significance. However, the subscales alone uncovered Empathy ($t = 3.041$, $p = .002$) and Social Responsibility ($t = -2.690$, $p = .007$) as being significant.

3. Discussion

Throughout the tests of EQ's relationship to academics, conduct, and performance only data for midshipmen who made it through the first five semesters was analyzed. This section's data represents all midshipmen, including the 212 midshipmen who left the Academy.

BarOn's EQ model showed significance in its major components of Adaptability and General Mood. These results showed that those who scored higher in Adaptability and General Mood were more likely to stay at the Academy.

In both Part I and Part II, the subscales of Reality testing and Happiness were significant. In addition, the subscale regression showed Empathy and Social Responsibility as being important.

Again, little known research has been conducted on the effect of emotional intelligence on attrition so the arguments set forth will be mostly conjecture.

BarOn (1997) defines Reality Testing as "...the ability to assess the correspondence between what is experienced and what objectively exists." (p. 17).

The data show that those who scored high on Reality Testing are more likely to stay at the Academy.

Those who have remained at the Academy showed a greater ability to "tune in" to the immediate situation and keep a proper perspective on the experiences they encounter.

BarOn further explains Reality Testing as an ability to concentrate on different ways of coping with situations that arise. It's an ability to "size up" a situation and respond accordingly. (p. 18)

BarOn (1997) defines Happiness as "...the ability to feel satisfied with one's life, to enjoy oneself and others, and to have fun." (p. 18).

The data demonstrate that those who scored high on Happiness are more likely to stay at the Academy.

Goleman (1995) suggests that the biological changes associated with happiness tend to minimize negative feelings, increase one's energy level, and provide an ability to soothe troublesome thoughts. (p. 7)

In essence, one might propose that happiness serves as a foundational tool for reality testing. An ability to minimize negative feelings may serve to provide clarity in thought and promote objectivity, which is a cornerstone of reality testing.

BarOn (1997) defines Social Responsibility as "...the ability to demonstrate oneself as a cooperative, contributing, and constructive member of one's social group." (p. 17).

The data show that those who scored high on Social Responsibility are more likely to stay at the Academy.

In the author's opinion, many of the midshipmen who attend the Naval Academy are goal-oriented. For example, throughout the acculturation process at the Naval Academy, a midshipman is challenged to exhibit loyalty to those in the same class. Freshmen are often encouraged to establish a sense of class identity by yelling out their class year (e.g., "91, Sir!").

This study suggests that those who like a socially-oriented environment may be more likely to stay. The long-standing traditions serve as a primer for those who want to constructively contribute to a group.

Empathy was the only EQ subscale that showed an inverse relationship to attrition. Those who scored higher in Empathy were more likely to leave the Naval Academy.

BarOn (1997) defines Empathy as "...the ability to be aware of, to understand, and to appreciate the feelings of others." (p. 16)

Goleman (1995) attributes empathy as "...the fundamental people skill." However, he also suggests that those who possess strong empathetic skills are better at caring professions such as teaching, sales, and management. (p. 43)

Another equally plausible assertion comes from Goleman (1995) who notes that empathy builds on self-awareness.

Goleman asserts that those who have a better understanding of their own emotions are better "pilots" of their lives.

There is an old adage that one can never really fully explain what it is like to be a midshipman. One must simply experience it.

Perhaps those who left the Academy realized, after their experience, that they would be better off somewhere else. Once in the Academy environment, they came to the understanding that another profession would be more beneficial.

A limitation in this particular portion of the study is that the exact reason for the separation from the Academy is not known. Nor does the study account for a differentiation between voluntary and involuntary separation or when the separation

occurred. Such distinctions could help in identifying the potential EQ factors which may have influenced attrition.

G. H₀: EQ HAS NO RELATIONSHIP TO GENDER

1. Method

A multivariate analysis of variance (MANOVA) was conducted with the four components of EQ (i.e., interpersonal, intrapersonal, adaptability, and general mood) and total EQ. One of the four independent variables, Interpersonal, proved to be significant and was further analyzed with respect to gender.

Next, an analysis of variance (ANOVA) was conducted on the remaining statistically significant component (i.e., interpersonal) and gender. Finally, the descriptives for the Interpersonal component was analyzed to help determine the relationship between gender and EQ.

Similar to the earlier experiments, the major component of interpersonal skills was broken down into subscales in an effort to pinpoint what is driving its significance.

2. Results

All data were reviewed with an alpha level of .05 as a threshold for statistical significance. One of the four EQ components was found to be statistically significant: interpersonal component with $F(1, 786) = 18.687$, $p = .000$. Therefore, the null hypothesis that emotional intelligence has no relationship to gender is rejected. Table 4.4 provides a list of the complete findings of the MANOVA's and ANOVA's.

Since the relationship between interpersonal skills and gender was statistically significant, exploring the means will be pursued for further analysis.

For interpersonal skills, the mean for women (120.37) was higher than men (113.29).

Once the major components were analyzed for significance, the statistically significant component of interpersonal skills was further broken down into its respective subscales and an ANOVA was conducted on each subscale with respect to gender.

For interpersonal skills component, all three of the subscales were statistically significant: Empathy, $F(1, 786) = 23.139$, $p = .000$; Interpersonal Relationships, $F(1, 786) = 6.340$, $p = .022$; and Social Responsibility, $F(1, 786) = 15.092$, $p = .000$.

Women scored higher (means) in all three areas of interpersonal skills. Women (114.74) were generally more empathic than men (106.76). Women (82.56) showed potential for stronger interpersonal skills than men (79.36). Finally, women (88.22) seemed more attuned to social responsibility than men (83.33).

Table 4.4 shows a summation of all of the significant findings in the MANOVA's and ANOVA's.

3. Discussion

It may be interesting to note that different researchers have argued about the development of EQ components in individuals. Goleman suggests some skills such as empathy are ingrained in a person at a young age. Conversely, certain EQ skills such as

social responsibility may become more evident over time since its construct reflects putting the good of the community over egocentric desires.

Furthermore, Sutarso and Toto (1996) found women to be higher in empathy than men. Indeed, some researchers (e.g., Goleman 1995, Bernet 1996) have shown that women are more attuned to their understanding of feelings. Hence, they tend to be able to recognize similar thoughts and feelings in others in such a way that promotes empathetic tendencies.

Goleman (1995) and Salovey and Sluyter (1997) suggest that women are stronger in interpersonal skills because of cultural influences. For instance, Goleman argues women are raised to be sensitive to people's feelings which gives them a better grasp of empathy.

Some researchers further assert that women tend to focus on building interpersonal relationships more than men (Goleman 1995, Porter & Stone 1995, and Sutarso & Toto 1996). Women usually rely more on a network of friends to help in coping with situations while men tend to focus on activities.

The BarOn EQ Inventory was conducted during a time when these women were embarking in a new way of life. One might argue that the female respondents were anticipating being the minority (approximately 16%) at the Naval Academy. Such a "mindset", coupled with a propensity for empathetic relations, may have encouraged a perspective that is conducive to Social Responsibility.

Perhaps these women were already building into their repertoire the ability to think in terms of a "cooperative" and "constructive" member of their new male-dominated social setting.

MANOVA EQ COMPONENTS	Male (N)	Female (N)	Male (Mean)	Female (Mean)	F test	Sig. (p<.05)
INTRA	NS	NS	NS	NS	NS	NS
INTER	675	113	113.3	120.4	18.7	.000
ADAPT	NS	NS	NS	NS	NS	NS
MOOD	NS	NS	NS	NS	NS	NS
TOTAL	NS	NS	NS	NS	NS	NS
<hr/>						
ANOVA EQ SUBSCALES OF INTER						
Empathy	675	113	106.8	114.7	23.1	.000
Interpersonal Relationships	675	113	79.4	82.6	6.3	.012
Social Responsibility	675	113	83.3	88.2	15.1	.000

1. NS = A non-significant component at the .05 level.

Table 4.4 MANOVA and ANOVA Results of EQ & Gender

V. CONCLUSION AND FURTHER RECOMMENDATIONS

A. CONCLUSION

These results have shown that emotional intelligence can serve as a predictor in several areas of interest to the Naval Academy.

Overall, BarOn's EQ components were able to show significant relationships with conduct, performance, and attrition. Only the hypothesis concerning academic grades revealed no significant relationship.

It is noteworthy that only three of the four EQ components exhibited some form of significance. The intrapersonal component was never significant in any of the regressions. Additionally, none of the intrapersonal subscales were significant.

This suggests that building one's self-knowledge may not be overly beneficial to the tested performance measurements at the Academy.

One researcher considers self-knowledge or self-awareness as a building block for the ability to empathize with others (e.g., Goleman 1995).

Yet empathy was shown to have an association with those who leave the Academy. Suggesting that having a better sense of self was actually detrimental to retention.

Although the components were helpful in making generalizations, much of the foundational precepts behind the EQ components were brought to light in the subscales.

The subscales helped to describe more of the specific relationships EQ has to the various performance measurements.

All interpersonal and general mood subscales were found to be significant in at least one regression.

Social responsibility was the predominant characteristic of EQ for the various models. It appeared significant in three separate models (conduct, performance, and attrition).

Social responsibility may give insight into why midshipmen choose to obey the rules. Perhaps a desire to conform and please those who are involved in the social setting may drive the obedience. Interestingly, the data show an association with this trait that it is rewarded through the performance system.

Finally, the data suggest that those who do not commit conduct violations and receive good performance evaluations are also likely to stay.

Next, optimism and happiness each appeared significant in separate models. Optimism showed relevance in academic success and general performance. An ability to maintain a positive attitude during setbacks may help one to achieve better grades. Also, a tendency toward looking at the "bright side" may be influential in how others perceive one's performance.

Happiness appeared pertinent under the conduct and attrition models. Those who scored higher in Happiness had lower conduct grades. This relationship may be

attributed to a disparity between a desire for a leisurely and autonomous lifestyle and that of the regimented perspective supported by the Academy.

Furthermore, those who scored high in Happiness were more likely to stay at the Academy. This may imply that the ability to enjoy oneself and be content through varying circumstances will improve retention. Perhaps Happiness serves as a tool to maintain objectivity through tough circumstances. Hence, the rigorous Academy experience may be better able to be taken in stride by those who possess these skills.

In summary, each of these EQ characteristics provides a potential to better understand how humans operate.

The portion of this study which dealt with the relationship between EQ and academics (i.e., IQ) gave evidence to suggest that the two competencies are separate.

Nearly two generations have given formal credence to the importance of IQ. Perhaps it is time to include EQ as a viable instrument to better understand an individual's total intelligence.

The study of EQ is still at its embryonic stage. It should continue to be enlightening as the studies increase, findings are made, and the EQ construct is refined.

B. FURTHER RECOMMENDATIONS

1. First Recommendation

This study has shown EQ to be relevant to several performance measurements at the Naval Academy. It is recommended that the discussion of the EQ construct be implemented in one of the Academy's leadership classes.

Emotional intelligence continues to gain acceptance in the world of psychology as evidenced by the recent outpouring of books on the subject.

If EQ makes a significant portion of one's overall intelligence, then the leaders of tomorrow should have a grasp of such valuable information.

2. Second Recommendation

This study was only able to review the data for the respondents over five semesters. It is recommended that a second study be conducted with the class of 2000 where they will be required to retake the BarOn EQ Inventory during their senior year.

Retaking the test will provide longitudinal data that will help to understand the possible development or retardation of EQ skills over a four year period.

Also, a retest in the spring of 2000 will allow for seven semesters of performance to be reviewed. Such a review will also include a midshipman's performance in the form of school leadership positions that are held only by seniors (striper positions).

3. Third Recommendation

Each Company Officer should be thoroughly trained in the understanding of EQ characteristics. In addition, each Company Officer should be afforded the opportunity to take the BarOn EQ test.

These efforts will help to give the Company Officer a better understanding of themselves and how they relate to their environment. Also, by better understanding how the EQ characteristics are manifested in their own lives, the Company Officers may be

able to discern similar traits in their midshipmen. Such a revelation could be beneficial in counseling, performance evaluations, and retention.

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APPENDIX A: DEFINITIONS OF EMOTIONAL INTELLIGENCE

Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. (Mayer and Salavoy, 1997, p. 10).

Emotional intelligence is the ability to sense, understand, and effectively apply the power and acumen of emotions as a source of human energy, information, connection, and influence. (Cooper and Sawaf , 1997, pxiii)

Quite simply, emotional intelligence is the intelligent use of emotions: you intentionally make your emotions work for you by using them to help guide your behavior and thinking in ways that enhance your results. (Weisinger, 1998, pxvi)

Emotional intelligence is the emotional needs, drives, and true values of a person and guides all overt behavior. (Simmons and Simmons, 1997, p. 11)

[EQ] includes knowing what you're feeling and using that knowledge to make good decisions. It's being able to manage distressing moods – claiming yourself when you're anxious and handling your anger appropriately. It's maintaining hope in the face

of setbacks, having empathy and being able to get along with people. (People, 1996, p. 85)

Emotional intelligence includes such skills as self-awareness, managing emotions, self-motivation, empathy, and handling relationships by managing emotions in others. (McDowelle and Bell, 1997, p. 1)

[EQ is] the ability to recognize feelings, control emotional balance, maintain a positive attitude when confronted by frustrations and difficulties, and connect with the feelings of others. (McDowelle and Bell, 1997, p. 2)

Salovey and Mayer (1990) described the subject of social intelligence that involves the ability to monitor one's own and others feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions. (Bernet, 1996, p.4)

Thorndike (1920) defined 'social intelligence' as 'the ability to understand others and to act wisely in human relations.' (Bernet, 1996, p. 4)

Gardner (1983), described the many 'intelligences' that we possess, referred to an essential 'internal aspect' of a person, the possession of 'access to one's own feeling life

– one's range of affects or emotions, the capacity instantly to effect discriminations among these feelings and, eventually, to label them, to enmesh them in symbolic codes, to draw upon them as a means of understanding and guiding one's behavior. . At its most advanced level, intrapersonal knowledge allows one to detect and to symbolize complex and highly differentiated sets of feelings.' Gardner also spoke of 'interpersonal intelligence' which permits 'a skilled adult to read the intentions and desires...of many other individuals and, potentially, to act upon this knowledge.' (Bernet, 1996, p. 4).

Lane and Schwarts (1987) described five levels in the development of emotional awareness; the highest 'formal operational' level permits many nuances of emotion, a multi-faceted empathic awareness of others, a rich differentiation in quality and intensity of feelings, and the ability to blend different and often contradictory feelings. (Bernet, 1996, p. 4)

There is no accepted definition and no adequate measure for the concept of EQ.
(Bernet, 1996, p. 1)

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APPENDIX B: DEFINITIONS OF BARON'S SUBSCALES

Bar-On (1997) lists the 15 conceptual components that are measured by the BarOn EQ-I subscales. The following was copied directly from the technical manual on pages 15 through 19.

Emotional Self-Awareness (ES)

Emotional self-awareness is the ability to recognize one's feelings. It is not only the ability to be aware of one's feelings and emotions, but also to differentiate between them, to know what one is feeling and why, and to know what caused the feelings. Serious deficiencies in this area are found in alexithymic (inability to express feelings verbally) conditions.

Assertiveness (AS)

Assertiveness is the ability to express feelings, beliefs, and thoughts and defend one's rights in a nondestructive manner. Assertiveness is composed of three basic components: (1) the ability to express feelings (e.g., to accept and express anger, warmth, and sexual feelings), (2) the ability to express beliefs and thoughts openly (i.e., being able to voice opinions, disagree, and to take a definite stand, even if it is emotionally difficult to do and even if one has something to lose by doing so), and (3) the ability to stand up for personal rights (i.e., not allowing others to bother you or take advantage of you). Assertive people are not overcontrolled or shy – they are able to outwardly express their feelings (often directly), without being aggressive or abusive.

Self-Regard (SR)

Self-regard is the ability to respect and accept oneself as basically good. Respecting oneself is essentially liking the way one is. Self-acceptance is the ability to accept one's perceived positive and negative aspects as well as one's limitations and possibilities. This conceptual component of emotional intelligence is associated with general feelings of security, inner strength, self-assuredness, self-confidence, and feelings of self-adequacy. Feeling sure of oneself is dependent upon self-respect and self-esteem, which are based on a fairly well developed sense of identity. A person with good self-regard feels fulfilled and satisfied with himself/herself. At the opposite end of the continuum are feelings of personal inadequacy and inferiority.

Self-Actualization (SA)

Self-actualization pertains to the ability to realize one's potential capacities. This component of emotional intelligence is manifested by becoming involved in pursuits that lead to a meaningful, rich, and full life. Striving to actualize one's potential involves developing enjoyable and meaningful activities and can mean a lifelong effort and an enthusiastic commitment to long-term goals. Self-actualization is an ongoing, dynamic process of striving toward maximum development of one's abilities, capacities, and talents. This factor is associated with persistently trying to do one's best and trying to improve oneself in general. Excitement about one's interests energizes and motivates him/her to continue these interests. Self-actualization is affiliated with feelings of self-satisfaction.

Independence (IN)

Independence is the ability to be self-directed and self-controlled in one's thinking and actions and to be free of emotional dependency. Independent people are self-reliant in planning and making important decisions. They may, however, seek and consider other people's opinions before making the right decision for themselves in the end; consulting others is not necessarily a sign of dependency. Independence is essentially the ability to function autonomously versus needing protection and support – independent people avoid clinging to others in order to satisfy emotional needs. The ability to be independent rests on one's degree of self-confidence, inner strength, and desire to meet expectations and obligations, without becoming a slave to them.

Empathy (EM)

Empathy is the ability to be aware of, to understand, and to appreciate the feelings of others. It is "tuning in" (being sensitive) to what, how, and why people feel the way they do. Being empathetic means being able to "emotionally read" other people. Empathetic people care about others and show interest in and concern for others.

Interpersonal Relationships (IR)

Interpersonal relationship skill involves the ability to establish and maintain mutually satisfying relationships that are characterized by intimacy and by giving and receiving affection. Mutual satisfaction includes meaningful social interchanges that are potentially rewarding and enjoyable. Positive interpersonal relationship skill is characterized by the ability to give and receive warmth and affection and to convey

intimacy to another human being. This component is not only associated with the desirability of cultivating friendly relations with others, but with the ability to feel at ease and comfortable in such relations and to possess positive expectations concerning social intercourse. This emotional skill generally requires sensitivity towards others, a desire to establish relations, and feeling satisfied with relationships.

Social Responsibility (RE)

Social responsibility is the ability to demonstrate oneself as a cooperative, contributing, and constructive member of one's social group. This ability involves acting in a responsible manner, even though one may not benefit personally. Socially responsible people have social consciousness and a basic concern for others, which is manifested by being able to take on community-oriented responsibilities. This component relates to the ability to do things for and with others, accepting others, acting in accordance with one's conscience, and upholding social rules. These people possess interpersonal sensitivity and are able to accept others and use their talents for the good of the collective, not just the self. People who are deficient in this ability may entertain antisocial attitudes, act abusively towards others, and take advantage of others.

Problem Solving (PS)

Problem solving aptitude is the ability to identify and define problems as well as to generate and implement potentially effective solutions. Problem solving is multiphasic in nature and includes the ability to go through a process of (1) sensing a problem and feeling confident and motivated to deal with it effectively, (2) defining and formulating

the problem as clearly as possible (e.g., gathering relevant information), (3) generating as many solutions as possible (e.g., brainstorming), and (4) making a decision to implement one of the solutions (e.g., weighing the pros and cons of each possible solution and choosing the best course of action). Problem solving is associated with being conscientious, disciplined, methodical, and systematic in persevering and approaching problems. This skill is also linked to a desire to do one's best and to confront problems, rather than avoiding them.

Reality Testing (RT)

Reality testing is the ability to assess the correspondence between what is experienced and what objectively exists. Testing the degree of correspondence between what one experiences and what actually exists involves a search for objective evidence to confirm, justify, and support feelings, perceptions, and thoughts. Reality testing involves "tuning in" to immediate situation, attempting to keep things in the correct perspective, and experiencing things as they really are, without excessive fantasizing or daydreaming about them. The emphasis is on pragmatism, objectivity, the adequacy of one's perception, and authenticating one's ideas and thoughts. An important aspect of this factor is the degree of perceptual clarity evident when trying to assess and cope with situations; it involves the ability to concentrate and focus when examining ways of coping with situations that arise. Reality testing is associated with a lack of withdrawal from the outside world, a tuning into the immediate situation, and lucidity and clarity in

perception and thought processes. In simple terms, reality testing is the ability to accurately "size up" the immediate situation.

Flexibility (FL)

Flexibility is the ability to adjust one's emotions, thoughts, and behavior to changing situations and conditions. This component of emotional intelligence refers to one's overall ability to adapt to unfamiliar, unpredictable, and dynamic circumstances. Flexible people are agile, synergistic, and capable of reacting to change, without rigidity. These people are able to change their minds when evidence suggests that they are mistaken. They are generally open to and tolerant of different ideas, orientations, ways, and practices.

Stress Tolerance (ST)

Stress tolerance is the ability to withstand adverse events and stressful situations without "falling apart" by actively and positively coping with stress. It is the ability to weather difficult situations without getting too overwhelmed. This ability is based on (1) a capacity to choose courses of action for coping with stress (i.e., being resourceful and effective, being able to come up with suitable methods, and knowing what to do and how to do it), (2) an optimistic disposition toward new experiences and change in general and towards one's ability to successfully overcome the specific problem at hand (i.e., a belief in one's ability to face and handle these situations), and (3) a feeling that one can control

or influence the stressful situation (i.e., keeping calm and maintaining control). This component of emotional intelligence is very similar to what has been referred to as “ego strength” and “positive coping.” Stress tolerance includes having a repertoire of suitable responses to stressful situations. Stress tolerance is associated with the capacity to be relaxed and composed and to calmly face difficulties, without getting carried away by strong emotions. People who have good stress tolerance tend to face crises and problems, rather than surrendering to feelings of helplessness and hopelessness. Anxiety often results when this component of emotional intelligence is not functioning adequately, which has an ill effect on general performance because of poor concentration, difficulty in making decisions, and somatic problems like sleep disturbance.

Impulse Control (IC)

Impulse control is the ability to resist or delay an impulse, drive, or temptation to act. It entails a capacity for accepting one’s aggressive impulses, being composed, and controlling aggression, hostility, and irresponsible behavior. Problems in impulse control are manifested by low frustration tolerance, impulsiveness, anger control problems, abusiveness, loss of self-control, and explosive and unpredictable behavior.

Happiness (HA)

Happiness is the ability to feel satisfied with one’s life, to enjoy oneself and others, and to have fun. Happiness combines self-satisfaction, general contentment, and the ability to enjoy life. This component of emotional intelligence involves the ability to enjoy various aspects of one’s life and life in general. Happy people often feel good and

at ease in both work and leisure; they are able to "let their hair down," and enjoy the opportunities for having fun. Happiness is associated with a general feeling of cheerfulness and enthusiasm. Happiness is a by-product and/or barometric indicator of one's overall degree of emotional intelligence and emotional functioning. A person who demonstrates a low degree of this factor may possess symptoms typical of depression, such as a tendency to worry, uncertainty about the future, social withdrawal, lack of drive, depressive thoughts, feelings of guilt, dissatisfaction with one's life and, in extreme cases, suicidal thoughts and behavior.

Optimism (OP)

Optimism is the ability to look at the brighter side of life and to maintain a positive attitude, even in the face of adversity. Optimism assumes a measure of hope in one's approach to life. It is a positive approach to daily living. Optimism is the opposite of pessimism, which is a common symptom of depression.

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